Github Link: <https://github.com/jotishkumar/SQL-Portfolio-Project>

Medium Link: <https://medium.com/@jotishkumar950/understanding-customer-churn-a-sql-analysis-of-the-customer-churn-dataset-69a0e7581ac5>

**Query 1: Considering the top 5 groups with the highest average monthly charges among churned customers, how can personalized offers be tailored based on age, gender, and contract type to potentially improve customer retention rates?**

**Answer:**

create database project;

select \* from customer\_churn\_dataset;

ALTER TABLE customer\_churn\_dataset

CHANGE `Monthly Charge` `Monthly\_Charge` double;

ALTER TABLE customer\_churn\_dataset

CHANGE `Churn Label` `Churn\_Label` text;

SELECT

Customer\_ID, Age,

Gender,

Contract,

AVG(Monthly\_Charge) AS Avg\_Monthly\_Charge

FROM

customer\_churn\_dataset

WHERE

Customer\_Status = 'Churned'

GROUP BY

Customer\_ID, Age, Gender, Contract

ORDER BY

Avg\_Monthly\_Charge DESC

LIMIT 5;

**SnapShot:**



**Explanation:**

The first two queries alter the customer\_churn\_dataset by renaming the following columns to improve clarity and usability:

Monthly Charge is changed to Monthly\_Charge ;

Customer Status` is changed to Customer\_Status;

The third query analyzes the dataset to find out how much churned customers typically paid each month. It looks at the average monthly charge for these customers, grouped by their age, gender, and contract type. The results are sorted from the highest to lowest average charge, showing the top 5 groups with the highest average monthly payments.

**Query 2: What are the feedback or complaints from those churned customers**

**Answer:**

ALTER TABLE customer\_churn\_dataset

CHANGE `Customer ID` `Customer\_ID` TEXT;

ALTER TABLE customer\_churn\_dataset

CHANGE `Churn Reason` `Churn\_Reason` TEXT;

ALTER TABLE customer\_churn\_dataset

CHANGE `Satisfaction Score` `Satisfaction\_Score` TEXT;

ALTER TABLE customer\_churn\_dataset

CHANGE `Churn Category` `Churn\_Category` TEXT;

SELECT

Customer\_ID,

Churn\_Reason,

Satisfaction\_Score,

Churn\_Category

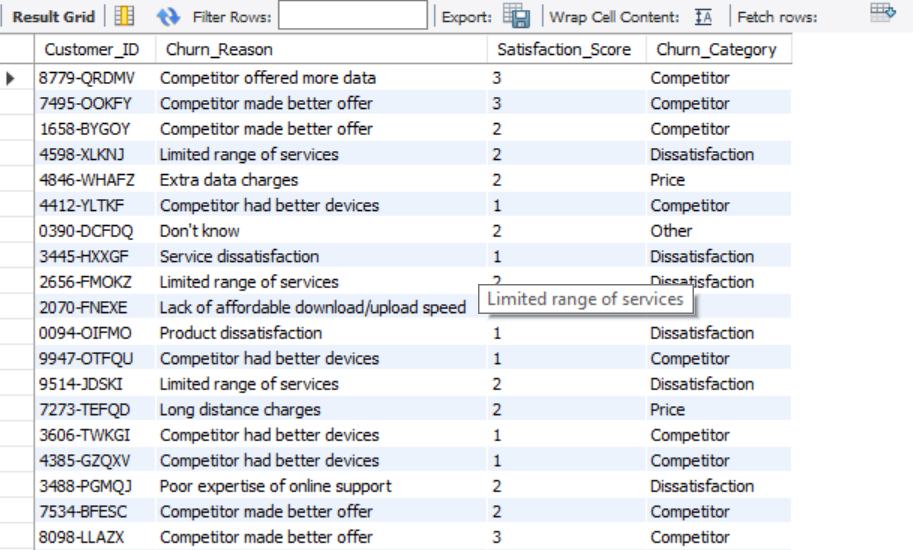
FROM

customer\_churn\_dataset

WHERE

Customer\_Status = Churned;

Snapshot:



**Explanation:**

The first four queries alter the customer\_churn\_dataset by renaming the following columns to improve clarity and usability:

1. Customer ID is changed to Customer\_ID.
2. Churn Reason is changed to Churn\_Reason.
3. Satisfaction Score is changed to Satisfaction\_Score.
4. Churn Category is changed to Churn\_Category.

The last query selects the Customer\_ID, Churn\_Reason, Satisfaction\_Score, and Churn\_Category specifically for customers who have churned, indicated by Customers\_Status = 'Yes'. This query is intended to facilitate analysis of customer feedback and satisfaction at the time of their departure.

**Query 3: How does the payment method influence churn behavior?**

**Answer:**

ALTER TABLE customer\_churn\_dataset

CHANGE `Churn Score` `Churn\_Score` int;

SELECT

`Payment Method`,

COUNT(CASE WHEN `Customer\_Status` = 'Churned' THEN 1 END) AS Churned\_Customers,

AVG(Satisfaction\_Score) AS Average\_Satisfaction\_Score,

AVG(Churn\_Score) AS Average\_Churn\_Score

FROM

customer\_churn\_dataset

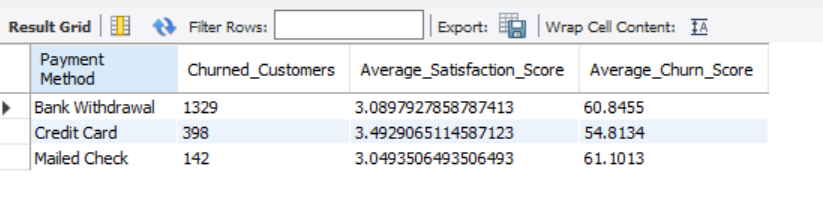
GROUP BY

`Payment Method`

ORDER BY

Churned\_Customers DESC;

**SnapShot:**



**Explanation:**

The first query modifies the customer\_churn\_dataset by renaming the column

1. Churn Score is changed to Churn\_Score.

The second query retrieves information grouped by Payment Method, including the count of customers who have churned indicated by Customers\_Status = 'Yes’, labeled as Churned\_Customers. It also calculates the average satisfaction score of all customers as Average\_Satisfaction\_Score and the average churn score as Average\_Churn\_Score.

The results are ordered by the number of churned customers in descending order, facilitating an analysis of churn behavior in relation to different payment methods.